

Target CEO Career Incentives and Takeover Bids^{*}

Thomas W. Bates^a

Robert Parrino^b

Qingqing Wu^c

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Abstract

This paper examines the determinants of post-takeover employment opportunities for Chief Executive Officers (CEOs) displaced by takeover bids. The pre-bid operating and stock performance of a firm is positively related to the likelihood of post-takeover employment for relatively young CEOs, but not for older CEOs, suggesting that both performance and CEO horizon are important. Pre-bid performance is also positively related to the likelihood that a target CEO obtains an executive position with the acquiring firm after the takeover, a result consistent with the notion that target CEOs possess valuable firm-specific human capital. Consistent with previous findings that some target CEOs trade acquisition premium for side benefits, the return to target shareholders is lower when the target CEO obtains a position in the acquiring firm. Relatively young CEOs are more likely to resist initial takeover bids when their pre-bid performance is poor and when the pool of prospective employment opportunities is relatively shallow. Overall the evidence from this study indicates that pre-bid performance and career horizon are significant determinants of a target CEO's post-takeover employment opportunities, and are also reliably linked to the executive's response to a takeover bid.

Keywords:

Merger and acquisition; corporate governance; CEO incentives; horizon problems; CEO turnover

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^{*} Corresponding author: Thomas.bates@asu.edu and (480) 965-6300. The authors would like to thank Jeffrey Coles, Michael Lemmon, David Yermack, Mike Stegemoller and seminar participants at the McCombs School of Business, University of Texas at Austin for their helpful comments and suggestions.

^a Department of Finance, W.P. Carey School and Business, Arizona State University

^b Department of Finance, McCombs School of Business, University of Texas at Austin

^c Department of Business Management, Poole College of Management, North Carolina State University

1. Introduction

Corporate acquisitions can abruptly expose top managers of target firms to possible termination and the discipline of the external labor market. The threat of such termination for most managers is quite significant. Over the last two decades, approximately four percent of the publicly listed firms on US exchanges were subject to a takeover bid in any given year, and the vast majority of these bids were completed. With a limited supply of top management positions at any one time, it is perhaps not surprising that the consequences of a change-in-control event for the careers of top managers, even good ones, can be quite severe. For example, Agrawal and Walkling (1994) find that only 39% (42 of 107) target CEOs were employed as senior executives in public corporations one year after a completed takeover bid.

In this study, we examine the determinants of post-takeover employment opportunities for CEOs displaced by takeover bids. Specifically, we consider the post-takeover employment of these CEOs as senior executives and board members of other firms. If the primary motive for takeovers is to correct the poor performance of incumbent managers (e.g. Karpoff and Malatesta, 1989), post-takeover career concerns for target CEOs might be relatively trivial. Agrawal and Jaffe (2003), however, find no evidence of systematic underperformance in firms that become takeover targets, even for firms subject to hostile bids. Coates and Kraakman (2011) suggest that career concerns might also be less important for target CEOs with relatively short career horizons, but do not find any evidence that the likelihood of a takeover bid is increasing in the age of the CEO. In our study, the average (median) age of a target CEO is 54 (55) years. Given that normal retirement age is clustered in the range of 64 to 66 years, and that the post-retirement employment incentives associated with directorships is quite

significant (e.g. Brickley, Linck, and Coles, 1999), it is reasonable to assume that post-takeover career considerations are important for target CEOs of any age.

A crucial element of this analysis lies in the identification of relevant performance statistics for determining a manager's post-takeover employment opportunities. Typical models of CEO turnover/retention, including Hirshleifer and Thakor (1994) and Hermalin and Weisbach (1998), posit that corporate boards learn about the quality of their CEOs from firm performance, among other signals. In general, the board dismisses a manager if the manager's performance falls far enough below some threshold, for example the expected performance of a replacement manager, to justify incurring the costs of turnover. In this paper we examine whether a CEO's performance prior to the bid, and in negotiating the bid itself, provides prospective employers with information about the quality of the CEO and, by extension, affects post-takeover employment opportunities for the CEO. Our analysis also considers the effects of a CEO's age, their outside directorships, and changes in their wealth due to the takeover, all of which are likely to moderate the ability and willingness of the CEO to participate in the post-takeover labor market.

The empirical literature has documented a significant relation between firm performance and alternative job opportunities for CEOs. For example, Kaplan and Reishus (1990) and Brickley, Linck, and Coles (1999) find the likelihood of a CEO serving as an outside director on the board of another firm is negatively correlated with dividend cuts, but positively correlated with operating and stock performance. Gilson (1989) and Cannella, Fraser, and Lee (1995) also note that it is relatively unlikely for a manager to find subsequent employment if she has been displaced from a firm experiencing financial distress or has been responsible for a business failure. In the context of corporate acquisitions, Agrawal and

Walkling (1994) find that in their sample of 107 acquired firms from the Forbes 800, only 42 target CEOs were employed as senior executives in public corporations one year after a completed takeover bid. Harford and Schonlau (2013) find that the likelihood of a target CEO obtaining a board seat following an acquisition is positively correlated with their prior experience, but is not correlated with the takeover premium.

The relation between managerial performance at target firms and their post-takeover employment opportunities at acquiring firms has also been examined in the literature, but the conclusions from these studies are mixed. Martin and McConnell (1991) find that acquiring firms are less likely to retain target firm managers who underperform their industry prior to the bid. Wulf (2004) studies a sample of “merger of equals” and finds target shareholder returns to takeover events are lower when target CEOs manage the combined firms after the merger. Hartzell, Ofek, and Yermack (2004) provide similar evidence. Bargeron, Schlingemann, Stulz, and Zutter (2013) show that the acquisition gains to target shareholders are actually higher when the target CEO is retained following acquisitions by private equity firms.

Another contribution of our paper to the literature is that, while most previous papers focus on the target CEO’s retention in acquiring firms, we provide a more complete picture by investigating the CEO’s employment opportunities with non-acquiring firms as well.

Our observations on CEO employment outcomes are drawn from BoardEx, which covers a broad sample of both private and public firms. We examine 1,416 takeover auctions that are announced and either completed or withdrawn between 2000 and 2008, of which 1,240 result in a completed transaction. Within two years after a completed merger, 75.1% of the displaced target CEOs obtain a new position as either an executive officer or director of a

corporation. Of these, 53.9% obtain a new executive officer position and 43.5% obtain at least one new position as a director.

We first identify factors that drive post-takeover employment opportunities for CEOs dislodged from their firms due to a takeover. Following the literature, we distinguish between old and young CEOs, where young CEOs are 61 years of age or less prior to the initial takeover bid. We make this distinction given that mandatory executive and director retirement ages reduce the likelihood that an older CEO will be hired in any capacity, regardless of performance.¹ Our analysis indicates that the pre-bid operating and stock price performance of a target firm has a significant and positive impact on the likelihood that a young CEO obtains a new position as an executive and/or director of another company following a takeover. For example, a one standard deviation increase from the sample mean in the two-year average net-of-market pre-bid stock returns is associated with a 4.2% higher likelihood that a young former CEO is subsequently employed, in any capacity, at another firm. This is an economically significant effect given that the unconditional likelihood of employment is 78.2% for this subsample. Consistent with the notion that employment opportunities decline in age, the effects of pre-bid performance are insignificantly associated with post-acquisition employment outcomes for target CEOs 61 years of age or older.

We also examine how performance associated with the acquisition transaction itself affects post-takeover employment of displaced target CEOs. Specifically, we investigate whether abnormal bid premiums and three-day target cumulative abnormal returns (CARs) around the bid announcement are related to the likelihood of post-takeover employment. These two measures reflect CEO quality in that they are related to the ability and willingness

¹ According to the 34th Annual Boards of Directors Study conducted by the Korn/Ferry Institute (2007), 80% of the companies responding to a survey reported that they had age limits for their directors in 1998, with an average mandated retirement age of 72 (see www.kornferryinstitute.com/files/pdf1/Board_Study07_LoRez_FINAL.pdf).

of the CEO to negotiate higher prices for target shareholders. We find that both abnormal bid premium and CAR are positively related to the subsequent employment opportunities of young CEOs. Abnormal bid premium, calculated as the difference between the observed offer premium and the predicted-model value, is positively correlated with the likelihood that a young target CEO obtains a position as director of another firm after an acquisition. To the extent that abnormal premium relays information about the CEO's ability to negotiate with a prospective acquirer about the value of firm asset of a given quality, this finding suggests that bid outcomes convey important information about CEO quality to prospective employers.

The three-day target CARs are negatively related to post-takeover employment outcomes for target CEOs. Notably, this negative relation is observed only for positions obtained in acquiring firms. A one standard deviation increase in the 3-day CAR is associated with 4.2% and 6.6% higher likelihood that a target CEO is retained in the acquirer as an officer or a director, respectively. This is an economically significant effect relative to the unconditional likelihood of 14% and 12.4%. Given this evidence we conclude that while some target CEOs may be fundamentally valuable to acquirers and are more likely to be retained as top executives, others appear to engage in self-dealing in the context of the bid. These results provide some resolution to the seemingly inconsistent evidence in Hartzell, Ofek, and Yermack (2004), Wulf (2004), and Barger et al. (2013).

The extant literature has largely ignored the expected value of post-takeover employment opportunities for target CEOs; however, understanding this incentive is essential to identifying the motivations of managers to resist takeover bids. It is also important in helping us understanding the incentive effects of common contracting arrangements that are designed to offset a CEO's exposure to post-takeover unemployment, such as golden

parachutes and the immediate vesting of stock options and restricted stock at the consummation of a takeover bid. We construct a measure of CEO's wealth associated with the takeover to investigate this incentive effect. LogWealthRatio is calculated as the log of the ratio of final offer price times the number of target shares owned by CEO over the sum of annual salary and bonus prior to the auction, essentially a measure of the trade off between the benefit and the cost from the consummation of a takeover. It is positively correlated with the likelihood that a young target CEO obtains a position as a director of the acquirer, but negatively associated with an officer position with a non-acquiring firm after an acquisition.

To better understand the decision of retaining a target CEO by the acquiring firm, we test the acquirer long-run performance against the incidence of target CEO retention. The 3-year buy-and-hold abnormal stock return is negatively correlated with the deviation of actual target CEO's retention from the model-predicted probability of CEO retention. We use this deviation to capture the "mistake" that the acquirer makes by keeping a non-valuable target CEO as an officer, or their failure to keep a valuable target CEO. This result indicates that the retention of target CEO is an important decision for acquiring firms to make, and it has economically and statistically significant effect for shareholders in the combined firm in the long term.

Given our evidence on the effects of pre-bid performance on the post-takeover employment outcomes for target CEOs we next examine whether bid hostility can be explained by CEO age and firm performance. With their longer remaining employment horizons, CEOs who are young and have exhibited relatively poor pre-bid performance face a higher expected cost of displacement through the takeover. We find that while age has a negative impact on bid resistance, the effect is non-linear and concentrated in a subsample of CEOs over the age of

61. For this subsample of older CEOs, it is a convex curve where the likelihood of bid resistance first decreases up to age 69 and then increases at a sharply increasing rate from that point on. This is consistent with the notion that CEOs nearing retirement are sensitive to the prospect of future employment opportunities as directors (e.g. Brickley, Linck and Coles, 1999), but that these incentives diminish dramatically as the individual nears an age commonly associated with mandatory retirement for directors.

We also consider a number of other factors likely to affect a manager's perception of his or her post-takeover employment opportunities, including average net-of-industry stock price performance and the pool of prospective employment opportunities, both of which affect the likelihood that a young displaced CEO obtains an executive or director position following an acquisition. Consistent with the evidence reported by Agrawal and Jaffe (2003), pre-bid performance has little effect on the overall likelihood that a target manager resists a bid. We do find that, for relatively young target CEOs, the likelihood of bid hostility is negatively related to the interaction of pre-bid performance and the depth and homogeneity of post-takeover employment opportunities in the same industry.

To fully understand the disciplinary implications of the takeover market for target CEOs, we also investigate the incidence of CEO turnover following withdrawn auctions. While these takeover bids are ultimately unsuccessful, they do provide the target board with a discrete event that can be used to evaluate the past performance of the target CEO and to settle-up with poorly performing CEOs (e.g. Fama, 1980). Consistent with this idea, Denis and Serrano (1996) document a high rate of CEO turnover following failed takeover bids.

We estimate a Cox proportional hazard model for CEO turnover as a function of whether the takeover bid is withdrawn, net-of-industry stock price or accounting performance

during the CEO's tenure, CEO age or tenure with the firm, an indicator variable equal to one if the CEO is a founder of the firm, and the fraction of independent directors on the board. This analysis indicates that withdrawn takeover bids affect the rate of target CEO turnover; with standardized coefficients suggesting that a failed auction can increase the hazard rate of target CEO turnover by 3% for a given year afterwards. Thus even when a bid does not ultimately result in a completed transaction, it can have a profound effect on the professional career of a target CEO. This may explain why bid resistance is only observed in only 6.2% of the sampled bids. While employment outcomes for displaced target CEOs can be quite bleak, CEOs that successfully ward off takeover attempts face an equivalently dismal employment future.

Overall the evidence reported in this paper provide strong evidence that pre-bid performance and career horizon are significant determinants of a target CEO's post-takeover employment opportunities and are also reliably linked to the executive's response to a takeover bid.

The remainder of the paper is organized as follows. Section 2 explains sample formation and provides summary statistics. Section 3 investigates the determinants of post-takeover employment opportunities for target CEOs. Section 4 examines the target management's response to a takeover bid and its relation to the CEOs' career concerns. Section 5 provides empirical evidence on target CEO employment outcomes following withdrawn bids. Section 6 concludes.

2. Sample and summary statistics

The majority of our analysis uses a sample of 1,416 auctions for US public target firms between 2000 and 2008, of which 1,240 result in completed change-in-control transactions.

The sample is formed as follows. We begin with 4,422 merger and acquisition events that are announced and either completed or withdrawn between January 1, 2000 and December 31, 2008, from the Mergers and Acquisitions database maintained by SDC. We choose this sample period because a two-year window is required to observe the post-takeover employment outcomes of CEOs in BoardEx, from where we obtain the CEOs' biographic information. In order to focus on change-in-control events we require that the acquirer holds 50% or less of the target stocks prior to the announcement, and seeks to own more than 50% afterwards. This screening yields 4,269 bids, and 3,529 are retained in the sample with inflation-adjusted transaction value greater than \$10 million. The bids are organized into 2,935 auctions following Bates and Lemmon (2003).² We then merge the auction sample by target identifiers with CRSP and COMPUSTAT for stock return and financial statement information. We require that target firms have monthly-compound stock return and average ROA over two years prior to the announcement date of the initial bid in the auction. This restriction leaves us with 2,425 auctions.

We then match the auction sample with BoardEx database provided by Management Diagnostic Limited for the target CEO's identification and post-takeover employment outcomes. The BoardEx database covers social network data on company executives and directors of over 14,000 US and European public and private companies since 1999. The biographic information includes past employment, current employment status, education background, and social activities. We use past and current employment information in this paper, including the detailed title, role description, the beginning date and the ending date of each position the target CEO holds, both before and after the auction. We extract the CEO's

² A bid is part of an auction if announced within 365 calendar days of a prior bid announcement for the same target. An auction consists of either single bid or multiple bids.

annual compensation and stock ownership in the target firm from ExecuComp and hand search those not covered by ExecuComp in proxy statements and 10-K filings in the EDGAR database.

We have 1,416 auctions in the final sample, after dropping the auctions of which target firms cannot be identified in BoardEx, or no CEO is listed in BoardEx for the year prior to the announcement, or the CEO compensation information is unavailable or the annual cash compensation is smaller than \$1000. For the 1,240 completed auctions, we identify whether the target CEO obtains any officer and/or director position in a firm that he is not previously associated with over a two-year period following the completion of the auction. Of the 1,240 CEOs displaced by takeovers, 75.1% (931) are identified to have found one or more additional jobs as either a director or an officer of a firm covered by BoardEx during this post-takeover window.

Summary statistics for the sample auctions and executives are presented in Table 1. In Panel A we present the yearly distribution of auctions, and in Panel B we outline the distribution of auctions by target firm industry using the Fama-French 12-industry definitions. As has been noted in the literature, there is some secular variation in the volume of takeover activity. The year 2002 featured the fewest number of proposed transactions, and volume peaked in the years 2006 and 2007. Overall, 87.6% of the auctions in our sample are completed and 14.3% of the transactions are structured as tender offers. Auctions in the industry of business equipment are the most common in the sample, while the industry classified as Durables experiences the fewest number of auctions during the sample period. Auctions in Health and Finance industries are most likely to be completed.

Panel C of Table 1 summarizes the age of the target CEOs at the date when the first bid in an auction was announced, as well as the post-takeover employment status of displaced target CEOs. The greatest number of auctions involve CEOs between the age of 55 and 59, thus it is not surprising that the average and median age of the target CEOs in the sample is 54 and 55, respectively. The average age of the target CEOs for completed auctions is 54.4, which is significantly lower than the average (median) age of retiring CEOs of 61.2 (63) reported in Brickley et al. (1999). We examine the rate of employment two years after the auction and find that the highest rate of subsequent employment of any type (officer or director) is 84%, clustered in the subsample of CEOs age 35-39. Our evidence indicates that the unconditional likelihood of obtaining an officer job after an acquisition is relatively constant (between 55% and 69%) for the subsample of CEOs aged 35 to 59, and drops off thereafter. This result is not surprising given the existing evidence that CEO retirement age is narrowly clustered in the range of 64 to 66. We also observe a significant incidence of follow-on director jobs for displaced CEOs, with the greatest frequency occurring for those between the ages of 55 and 64.

In many cases, target CEOs are employed by the acquiring firm after the acquisition. Barger et al. (2013) find that the retention of target CEOs is more likely when the executive possesses firm specific skills and information that the bidder does not have, and thus is an asset essential to the firm. We relate the incidence of post-takeover employment of target CEOs by acquiring and non-acquiring firms in the last two columns of Table 1, Panel C. Note that for this part of analysis and the multivariate analysis in Section 3, our sample is restricted to the 904 completed auctions with an acquiring firm covered by BoardEx, since we need the information to identify whether a certain position obtained by a target CEO is with the acquirer

or a non-acquiring firm. Post-takeover employment with the acquiring firm and employment with non-acquiring firms are not mutually exclusive; for example a CEO could take board seats in both types of firms following a takeover. The rate of employment with non-acquirers is roughly 1.5-2.5 times of the rate of employment with acquirers, with the exception of CEOs at both ends of the spectrum (ages groups 30-34 and 70-87).

Figure 1 highlights the employment outcomes for target CEOs displaced by mergers and acquisitions across different age groups. Overall, the proportion of target CEOs obtaining one or more jobs within two years of an acquisition is decreasing in CEO age up to 75, at which point it increases precipitously. Figure 1 also highlights the incidence of auction hostility as a function of CEO age, suggesting that hostility is more common in deals involving younger target CEOs. Younger CEOs may find the loss of a job more costly relative to older CEOs because they have a longer expected employment horizon. However, one may also argue that older CEOs usually face a significantly lower rate of post-takeover employment given the prevalence of mandatory retirement ages, or may be more likely to be subject to disciplinary turnover given that they, on average, have a longer tenure with their firms (e.g. Hermalin and Weisbach, 1998). We explore the determinants of bid hostility, and evaluate whether the response to a bid is correlated with factors that increase the expected cost of the target CEO losing his/her job in Section 4 of this paper.

Summary statistics for the initial bids in our sample auctions, pre-bid target firm financials, and target CEOs are provided in Table 2. Panel A outlines the characteristics of the initial bids and the returns to target and bidder shareholders. Summary statistics for the various offer characteristics including deal value, the prevalence of bidder toeholds, the form of payment from bidder to target shareholders, and the incidence of tender offers are generally

consistent with observations in the prior literature. A majority of our auctions (92.8%) consists of single bids; the completion rate is 87.6%, and only a small fraction (6.2%) of the target management teams shows resistance to the initial bid announcement.

Panel A of Table 2 also summarizes a variety of returns information for the auctions in our sample. Initial (final) bid premium³ is the difference between the offer price per share of the initial (final) bid in an auction and the stock price of the target on trading day t-5 or t-42 relative to the announcement date of the initial bid in an auction. Target (acquirer) cumulative abnormal returns (CARs) are computed as the cumulative difference between the return on the target (acquirer) stock and the return of the CRSP value-weighted index over a three-day announcement period window. While CARs provide a measure of overall shareholder welfare in these transactions, we also examine a measure of abnormal bid premium to establish the efficacy of a target manager's negotiation over the allocation of merger surplus. In order to measure abnormal premium we first identify the cross-sectional determinants of bid premiums for a subsample of single-bid completed auctions that occur between 2000 and 2008 with non-missing premium data. We examine bid premiums for single-bid auctions because we include deal characteristics in the regressions, while deal characteristics and structure for multi-bid auctions are more complicated thus noisier. Premiums are estimated using the offer price relative to the target's market price as of trading day t-42 relative to the announcement date. We model bid premiums using a specification similar to Eckbo (2009) and Bates and Becher (2011) with the parameters and coefficients summarized in Appendix B of this paper. Year fixed effect is included to capture any un-modeled macroeconomic characteristics. In our

³ Similar to Officer (2003), we treat the extreme outliers in premium variables in addition to standard winsorization applied on other variables in this paper. In particular, we winsorize premium variables at (0, 200%), and set a premium less than -20% to missing. This treatment generates unbalanced data in the initial bid premiums and final premiums.

sample, final premiums have a mean (median) of 42% (32.7%). Abnormal premiums, calculated as the difference between observed final premiums and the predicted value from the first stage regression, average 2.1% with a median of -1.8%. The mean of target and acquirer cumulative abnormal returns is 23.1% and -2.5%, respectively. Panel B of Table 2 summarizes the target financial and operating characteristics at the end of the fiscal year immediately prior to the announcement of an initial bid. We utilize two measures of target pre-bid performance in the analysis of this paper: industry-adjusted ROA and cumulative stock return adjusted by return on the CRSP value-weighted index. Both measures are calculated as the average annual return of a target firm, over two years prior to the announcement of the initial bid, or over the target CEO's tenure, whichever is less.

Panel C summarizes pre-bid characteristics and post-takeover employment outcomes of target CEOs. On average, target CEOs are subject to takeover attempts at 54 years of age, 53.7% also serve as Chair of the Board at the time of initial bids, and their average ownership in the target firm is 5.3%. The unconditional likelihood that a displaced CEO obtains any job within two years after the auction completion is 75.1%. Of the 1,240 completed auctions, 53.9% of the target CEOs obtained officer jobs, and 43.5% obtained director jobs.⁴ The likelihood of employment in the acquiring firm is 26.4%, whereas 63.5% of the CEOs obtain a position with at least one non-acquiring firm.

Table 3 presents the distribution of 1,240 completed auctions by the number of jobs target CEOs obtain within two years after the completion of a change-in-control transaction. Nearly half (46.1%) of the displaced CEOs are not subsequently employed as top executives.

⁴ If a CEO serves as both officer and director at a new firm, she is counted as obtaining an officer job, but not obtaining a director job. We present the statistics in this way to avoid double counting. However this doesn't exclude such cases that a person is employed as an officer at firm A, and a director at firm B. Thus, the percentage of CEOs with officer jobs and the percentage of CEOs with director jobs do not sum up to the percentage of CEOs obtaining any job.

Of those who are employed as top executives, the majority get only one job; however, 198 CEOs (16%) obtain more than one executive position within two years of a completed auction. This latter statistics indicates that many of the executive positions do not last very long. We find that 165 CEOs were initially retained as top acquirer executive or held an executive position in a subsidiary of the acquirer, and that 67.3% of these positions were terminated within two years, suggesting that target CEOs are retained in the combined firm to help the integration of target assets.

3. Target CEO performance and post-takeover employment

In this section we consider whether the pre-bid performance of the target firm moderates the likelihood that a target CEO, displaced by an acquisition, obtains a subsequent position as an officer or director. As described in Manne (1965) and Jensen (1986), a well functioning takeover market provides shareholders with a check on the efficiency of management's decision making. Under a "*q*-theory" of mergers (e.g. Jovanovic and Rousseau, 2002) acquisitions involve redeploying the assets of underperforming targets towards more profitable uses under the acquirer. Rhodes-Kropf and Robinson (2008), however, suggest that the market for mergers can be better characterized by synergies derived from asset complementarities between the acquirer and target rather than through the operating improvements in the target. Consistent with this, Agrawal and Jaffe (2003), find no evidence of systematic underperformance in firms that become takeover targets. The summary statistics for our sample supports the second theory, showing that the unconditional probability of post-takeover employment is as high as 75.1%. A multivariate regression analysis will help us

better understanding the relation between post-takeover employment and the nature of takeovers.

We first examine whether post-takeover employment is a function of a CEO's pre-bid operating and stock price performance, delineating between old and young CEOs. We then test whether these factors have a differential impact on employment outcomes specifically with the acquiring company. Operating performance might be less important for acquirers if the executive is him/herself an asset to the company. In addition, disciplinary transactions, where part or all of the value associated with the acquisition is the replacement of poorly performing managers, is unlikely to yield an employment outcome for a target CEO with the acquirer.

3.1. The determinants of post-takeover employment

Table 4 summarizes the results of a series of logistic specifications estimating the likelihood that a target CEO obtains any job (director and/or officer) with any firm during the two years after a completed change-in-control transaction. We evaluate the effects of target CEO performance over the pre-bid period defined as the two years before the initial bid. We follow Brickley, Linck, and Coles (1999) and evaluate performance using both accounting and stock returns. We estimate ROA as the average annual return of a target firm, net of the industry median. Stock price performance is estimated as the average compound annual return, net of the value-weighted CRSP market index, over two calendar years up to two months before the announcement of the initial bid in an auction. If a CEO has been in the office for less than two years we estimate performance only over her tenure as CEO.

We estimate specifications using two subsamples of displaced CEOs: 1039 young CEOs and 201 old CEOs. We identify young CEOs as those who are 61 years of age or younger at the time of the initial bid in the auction, and are therefore likely to be 62 years of

age or older at the completion of a transaction. This choice reflects the observation in Jagannathan and Loon (2010) that most firms explicitly adopt a mandatory retirement age of 65 or implicitly establish a retirement age of 65 when they design retirement plans. This also coheres with the empirical fact that CEO departures are clustered between age 64 and 66 (e.g. Brickley, Linck, and Coles, 1999).

All of the models in Table 4 control for target firm size, whether the CEO holds one or more outside board seats (PreBidDirectorship), whether there is more than one bidder for the target (MultipleBid), whether the first bid in the auction is classified as hostile by SDC (Hostility), and average R&D expenditure scaled by total asset across two years prior to the auction. Two explanatory variables are of particular interest to our research question. The first is a measure of CEO's wealth associated with the takeover to investigate the incentive effect (logWealthRatio). It is calculated as the log of the ratio of final offer price times the number of target shares owned by CEO over the sum of annual salary and bonus prior to the auction, essentially a measure of the trade off between the benefit and the cost from the consummation of a takeover. The second is a variable that defines the depth and homogeneity of the prospective employers in the same industry as the target firm. Specifically "JobPool" is the interaction between an indicator variable equal to one if the target industry is in the top quintile by number of public firms in the industry (defined using the Fama-French 30-industry definitions) and an indicator variable equal to one if the target industry homogeneity is above the sample industry median. As in Parrino (1997) we define industry homogeneity as the average of the partial correlation between the individual stock returns of firms in an industry and the returns on the industry index.

The results presented in Models 1 and 2 of Table 4 indicate that a young CEO's post-takeover employment opportunities are positively correlated with the pre-bid performance of the target firm. We report marginal effects, computed at the mean values of the independent variables, in parentheses. Marginal effects are estimated as the change in the probability of obtaining at least one employment opportunity as an officer or director of another company for a one standard deviation change in a continuous variable, or a shift from zero to one for an indicator variable. In Model 1, a one standard deviation improvement in pre-bid market-adjusted stock returns (Annual RET) is associated with a 4.2% increase in the likelihood that the target CEO finds a post-takeover position. In Model 2, a one standard deviation improvement in average annual industry-adjusted ROA (ROA) is associated with a 3.1% higher rate of employment. The influence of pre-bid stock price and operating performance on post-takeover employment opportunities for displaced target CEOs is economically significant given that the unconditional likelihood of post-takeover employment is 75.1%. Models 5 and 6 of Table 4 do not indicate that older CEOs experience a similarly positive correlation between pre-bid performance and post-takeover employment opportunities. Our conclusion that firm performance can affect subsequent labor market opportunities, particularly for younger target CEOs with longer remaining employment horizons, is consistent with the conclusion in Fama (1980) that the outside labor market for executive talent can provide significant performance incentives. More generally, our results also provide support for the notion underlying many career-concern models that superior performance is rewarded in the market for executive talent. We also examine the influence of performance associated with the acquisition itself on post-takeover employment outcomes for target CEOs. Specifically, we consider whether abnormal premiums or target cumulative abnormal returns (CARs) during the announcement period tell

us anything about CEO quality through their ability and willingness to negotiate for target shareholders. The results in Models 3 and 4 of Table 4 suggest that offer characteristics are correlated with post-takeover employment outcomes for young target CEOs. Abnormal premium is positively correlated with the likelihood that a CEO subsequently obtains employment with another firm. To the extent that abnormal premium relays information about the CEO's ability to negotiate with a prospective acquirer around the value of an asset of given quality, this finding suggests that bid outcomes convey important information about CEO quality to prospective employers. We do not find young target CEO's post-takeover employment outcomes are significantly correlated with announcement period target CARs. Hartzell, Ofek, and Yermack (2004) and Wulf (2004) find that target shareholders receive lower premiums and stock returns when target CEOs receive significant private benefits from acquirers; private benefits that include subsequent employment opportunities. Barger et al. (2013), however, find no evidence that target stockholder returns are lower when target CEOs are retained by public acquirers. To consider the issue further, we examine the determinants of CEO employment with acquiring firms in Table 5.

Two other control variables are significant determinants of post-takeover employment for target CEOs. The indicator variable equal to one if the CEO holds one or more outside board seats (*PreBidDirectorship*) yields a consistently positive and significant coefficient for both young and old CEOs. In unreported specifications we find that this effect is largely due to the acquisition of post-takeover board seats in acquiring firms, but also for the acquisition of executive positions and board seats for non-acquirers. Multiple pre-bid positions may provide an additional observation on CEO's quality, such as experience and skill. It may also represent a significant network effect in the CEO's post-takeover job search. *JobPool* turns out to be

marginally significant for young CEOs in two models out of four. We include in all models a measure of CEO's wealth effect associated with the takeover, calculated as the log of the ratio of final offer price times the CEO's holdings in target equity over the sum of annual cash compensation. On the one hand, takeover directly results in wealth gain related to the target CEO's stock holdings appreciation but also a loss of annual compensation in future years. On the other hand, a positive wealth effects can dampen incentives to search for employment after displaced in a takeover. Data on target CEO ownership is obtained from Execucomp, supplemented with hand collected information. We find no evidence that deal specific wealth effects have any impact on the likelihood that a displaced target CEO seeks out additional job opportunities in general.

3.2. The determinants of post-takeover employment with acquirers

In Panel A of Table 5 we consider the impact of pre-bid and bid performance on the likelihood that a young target CEO obtains a job as either an executive officer or director with the acquiring firm. We delineate between employment outcomes with acquiring and non-acquiring firms for two reasons. First, as noted in Matsusaka (1993) and Barger et al. (2013), target managers may be retained by acquiring firms because their human capital is a fundamental asset of the firm, weakening the link between performance and post-takeover employment. Second, Wulf (2004) and Hartzell, Ofek, and Yermack (2004) contend that target managers negotiate for private benefits with acquirers, including employment arrangements, at the expense of the shareholders of target firms. We exclude older CEOs (62 years of age or older) from this analysis because, given their retirement age they are unlikely to serve as executives after the acquisition, and because we find no evidence that their employment outcomes are correlated with their pre-bid or bid performance.

Table 5 Panel A suggest that, consistent with the determinants for placements with any firm in any job, pre-bid market-adjusted stock price performance is positively correlated with employment opportunities for target CEOs in acquiring firms. This result coheres with the conclusion in Barger et al. (2013) that acquiring firms are inclined to keep valuable target CEOs. The results in Model 3 do not suggest that abnormal premiums have any effect on job opportunities with acquirers, but in Model 4 there is a negative correlation between target shareholder announcement CARs and the likelihood that a target CEO obtains post-takeover employment with the acquiring firm. Specifically, for a one standard deviation decrease in target announcement period CAR, the likelihood that a CEO is hired by the acquirer increases by 5.8%.

In Panel B of Table 5 we examine the effect of pre-bid and bid performance on the type of job obtained in the acquirer. It is reasonable to assume that if target CEOs accept employment with the acquirer as a side-payment, rather than for their skill in operating the target assets, the position is more likely to be as a director than as a senior executive. Thus, the likelihood that a target CEO obtains a position as a director of the acquiring firm should be less sensitive to pre-bid performance, relative to instances where the target CEO obtains a position as an executive in the acquiring firm, and in fact will be negatively related to target stock returns around the bid announcement.

Models 1 through 4 in Panel B identify the significant marginal effect of pre-bid industry-adjusted ROA and stock return of the target on the likelihood that a target CEO obtains a job as an executive in the acquiring firm. Pre-bid performance, however, has no effect on the likelihood that the target CEO obtains a job as a director of the acquirer. We then look at bid performance in Models 5 through 8. The incidence of post-takeover directorship

positions in the acquirer is associated with lower abnormal premiums. When we assess the impact of target announcement period CAR on the likelihood of obtaining an executive officer or director job with the acquirer, we also find that the negative effect observed in Table 5 Panel A is attributable to the subsample of directorship positions, further confirming the notion that these CEOs are not valuable operating managers. Thus while some target CEOs may be fundamentally valuable to acquirers, and thus more likely to be retained as top executives, others appear to negotiate for primarily directorship positions with acquirers to the detriment of target shareholders.⁵ These results provide some resolution to the seemingly inconsistent evidence in Hartzell, Ofek, and Yermack (2004), Wulf (2004), and Barger et al. (2013).

3.3. The determinants of post-takeover employment with non-acquirers

In Table 6 we turn our attention to the determinants of post-takeover employment opportunities with non-acquiring firms for displaced target CEOs. The results confirm our earlier conclusion that the post-takeover employment market can provide strong incentives for pre-bid performance. For example, in Model 1 of Panel A, a one standard deviation increase in market-adjusted stock return is associated with a 5.1% higher likelihood of obtaining a job as either director or executive with a non-acquiring firm. This effect is quite large given an unconditional placement rate of 63.5% of at least one job with a non-acquiring firm in any position. Consistent with our earlier finding that abnormal final premiums are positively related to job opportunities, we find that a one standard deviation higher abnormal premium is associated with a 4.1% higher likelihood of obtaining any job with a non-acquiring firm. This suggests that a CEO's skill in negotiating with a prospective acquirer is both observable and a

⁵ Note that this does not necessarily imply an explicit transfer, but rather the target CEO may not be the best executive for the position, meaning that the value of the transaction might be lower because total surplus is lower to the deal.

relevant statistic for outside employers assessing managerial quality. Target announcement period CARs are insignificantly related to post-takeover employment with non-acquirers for target CEOs, a result that is expected given no opportunity for self-dealing.

In Panel B of Table 6 we test whether pre-bid and bid performance has differential impact on the likelihood of a follow-on executive position in a non-acquiring firm and that of a directorship position. We find that the positive relationship between stock market performance and post-takeover employment opportunities largely comes from the subsample of target CEOs obtaining executive positions, while operating performance and abnormal premium are only significant to the likelihood of obtaining a director position. Target announcement return is again not significantly correlated with either type of placement in firms other than the acquirer.

Consistent with the results in Table 4, pre-bid outside directorship consistently presages a higher likelihood of post-takeover employment for CEOs displaced by acquisitions. The result suggests that outside directorship may provide additional observations on CEO's quality, such as experience and skill, and/or it may represent a significant network effect in the CEO's post-takeover job search. More interestingly, we find that this positive relationship is mostly driven by additional board seats obtained after the takeover is completed. This is also the case with the placement in the acquiring firm. This evidence is not surprising since both the signaling of outside directorship and the network effect should be more significant for the same type of placement, i.e. director, than for executive positions as the two types of positions requires different experience and skill. We also find that the incidence of post-takeover employment as an executive is negatively correlated with takeover-related wealth gain, and positively correlated with target firm size.

4. Target CEO career concerns and the response to a takeover bid

Target management's response to a takeover bid has been the subject of significant number of studies in the literature. Baron (1983), Stulz (1988), and Schwert (2000) suggest that bid hostility is consistent with two distinct objectives of target managers. First, bid resistance can be a tactical step to improve target shareholder welfare either through the coercion of a higher offer from the bidder, or by enabling bids from higher value third-party bidders. Alternatively, hostility may be the byproduct of incumbent management's desire for continued employment and private benefits of control. Schwert (2000) concludes that hostility is, on average, consistent with bargaining by target with bidder management. Bebchuk, Coates, and Subramanian (2002) find that bid hostility consistently leads to bid failure in instances where targets possess strong anti-takeover defenses, a result they attribute to entrenchment. Bates and Becher (2011) document that hostile bids are commonly associated with substandard offer premiums, and that revised bids are frequently accepted following an initially hostile reception by target managers; evidence that is generally consistent with bargaining.

In this section we consider whether the target's response to a takeover bid is reliably associated with the CEO's future employment prospects; specifically their pre-bid operating and stock price performance, their age, the depth of the same-industry job pool and the outside directorship. We model the target firm's public response to an initial takeover bid in an auction with logistic regressions in which the dependent variable is an indicator variable equal to one if the initial bid in an auction is hostile as reported by SDC. While the second and third bids in an auction can also be identified as hostile, these later responses do not indicate that a target CEO is unwilling to be taken over if a first bid is not hostile. As previously documented

in the literature, the incidence of hostile bids is relatively low during the sample period with 88 auctions (6.2%) classified as hostile.

In Models 1 and 2 of Table 7 we regress the incidence of auction hostility for the full sample on the target CEO's age and a squared age term to identify any nonlinear effects. Our results do not suggest that the incentives to sell the firm vary in CEO age. Other measures including pre-bid performance, whether the acquirer is in the same industry as the target firm, and the depth of the same-industry job pool, are also uncorrelated with auction hostility. The CEO's pre-bid outside directorship is associated with lower likelihood of bid resistance, suggesting that a CEO with higher chance of post-takeover placement may show less resistance to a takeover attempt in the first place. The incidence of initial bid resistance is higher when the bidder has an equity toehold in the target immediately prior to the bid. In Model 2 of Table 7 we incorporate an interaction term combining the effects of the target CEO's age and pre-bid abnormal stock return. The insignificant coefficient on this interaction term indicates that target CEO career concerns are largely invariant in age for the full sample.

Model 3 investigates the horizon effect in more detail through three age group variables and the interaction terms between pre-bid abnormal stock return and age groups. AGE6266 is an indicator variable equal to one if a CEO is between 62 and 66 years old. In Models 3 to 5 of Table 7 we focus our attention on young CEOs defined as those 61 years old or younger at the time of the initial bid in the auction. The results in Model 3 do not indicate that there is a significant relation, linear or non-linear, between bid response and age for our sample of younger CEOs. The results in Model 3 are similar to those observed for CEOs of all ages (Model 1) with the exception of deal-related wealth change. To our surprise, this variable is positively significant. Our explanation is that CEOs who hold a large proportion of the equity

have a stronger tie to the firm hence show more resistance to takeover bids. In Model 4 we incorporate an indicator variable that is equal to one for target CEOs between age 53 and 61 at the announcement date of the initial bid in an auction, and equal to zero when the target CEO is younger than the subsample median of 53 years old. Consistent with Model 3, we do not find a differential bid response in the subsample of relatively young CEOs. When we interact this CEO age indicator variable with pre-bid abnormal stock price performance, however, we find that the very young CEOs are more likely to resist takeover bids when their stock price performance is relatively weak. This result is consistent with our earlier finding that a target CEO's future job opportunities are positively associated with pre-bid performance, and suggests that these effects are concentrated in a subsample of executives with the longest remaining employment horizon where expected loss associated with the displacement is highest. In Models 5 we introduce an interaction term between perspective job pool and performance. The negative coefficient implies that when the target firm industry is homogenous and the number future perspective employers is high, i.e. when the job market is efficient, the correlation between pre-bid underperformance and bid resistance is more pronounced.

In Models 6 to 8 of Table 7, we consider the incentives of older CEOs in our sample (those at age 62 or older at the time of the initial bid in an auction) to respond unfavorably to a takeover bid. Coates and Kraakman (2011) hypothesize that older CEOs are more likely to seek out acquisitions as an alternative to normal retirement because an acquisition typically allows the departing CEO to cash out his/her ownership and equity-based compensation at a significant premium. Shleifer and Vishny (2003) also suggest that the shorter employment horizons of target managers, relative to acquirers, may incent takeover activity, even in

instances where acquirers pay for the acquisition with overvalued stock. For our sample, however, Figure 1 and the summary statistics in Panel C of Table 1 suggest that the relationship between CEO's age and the likelihood of bid resistance is complicated and nonlinear. We investigate this relationship and the effect of horizon problem on the relation between performance and manager's attitude toward takeovers.

The results in Model 6 of Table 7 indicate that for CEOs 62 years of age or older, the incidence of hostility is decreasing, and, incorporating a squared age term also indicates that there is a significant degree of non-linearity in this relationship. Figure 2 illustrates the convexity derived from the relationship between age and hostility in Model 6 for older CEOs. This figure suggests that the conditional hostility rate for target CEOs declines to age 69 where there is approximately a 1.1% likelihood of observing a hostile bid. Model 7 assesses the impact of performance for the relatively young CEOs in this subsample who are around retirement age for executive positions. Brickley, Linck, and Coles (1999) find that retiring CEOs, which cluster in age between 64 and 66, have a significant likelihood of obtaining lucrative positions on corporate boards of directors, but that these opportunities are increasing in the pre-retirement firm performance. To consider the effects of being able to qualify for a director position, we create an indicator variable equal to one if the target CEO is between the age of 62 and 66 (AGE6266), where the median age of our old CEO subsample is 66. In general, an old CEO between the age of 62 and 66 is not more likely to resist a bid.

We do observe negative coefficients for the interaction term between AGE6266 and pre-bid abnormal stock performance. This indicates that for CEOs between age 62 and 66 the correlation between pre-bid underperformance and bid resistance is more pronounced than for the age group 67 and above. We consider the horizon problem of these "relatively younger"

old CEOs carefully. On the one hand, they are close to retirement age for executive positions, therefore face the director labor market more than the top executive labor market. On the other hand, they are still actively seeking a board seat after displaced in a takeover, unlike those of age 67 or above who are not that far from the mandatory retirement age for directors. Although the signs are consistent, i.e. both young and old CEO subsamples have the relatively younger ones showing more resistance if their firms underperform the market prior to the takeover, our interpretation for the results is slightly different. The young CEOs under 53 aim to be employed as a top executive, while the counterpart in old CEO subsample between 62 and 66 seek board seats under the same horizon effect.

Unlike in the subsample of young CEOs, the positive correlation between underperformance and bid resistance of old CEOs is not associated with same-industry job pool. This may be explained by the difference in the nature of executive and director positions in that director jobs are not likely to require same-industry working experience, and are not strictly restricted to the number of homogenous firm.

5. Target CEO employment following failed auctions

To this point we have focused on the employment outcomes of CEOs that are subject to turnover as the result of a successful takeover of their firms. To more fully understand the incentives of CEOs subject to takeover bids, we examine the employment outcomes for target CEOs subject to auctions that do not result in completed transactions. Denis and Serrano (1996) examine management turnover in target firms following 98 unsuccessful takeover bids between 1983 and 1989. Their results indicate that management turnover in these firms is nearly double the rate observed for a random sample of firms. Bates and Becher (2013) estimate the

likelihood of target CEO turnover following withdrawn and contested bids and find that turnover is more likely when the CEO rejects a relatively high-value bid. Of course, an auction may not culminate in a successful takeover for many reasons including bid resistance by target management, a failure to obtain a regulatory approval, or a failure of the acquirer to obtain adequate financing. This aside, we assume that the observation of a takeover bid for a target provides target boards with a discrete event to evaluate the past performance of the target CEO and to settle up with poorly performing CEOs (e.g. Fama, 1980). Our evidence in Section 4 suggests that the likelihood of target CEO bid resistance is, in fact, inversely related to the pre-bid stock price performance of the target company.

To evaluate whether failed takeover bids have an impact on CEO tenure we estimate the following Cox proportional hazard function:

$$h_i(t) = \lambda_0(t)\exp^{X_{it}}$$

where $h_i(t)$ is the hazard (probability) that the i^{th} CEO in the sample will turnover at time t , and $\lambda_0(t)$ is the baseline hazard at time t . X_{it} is a vector of time-varying covariates including an indicator variable for a CEO associated with a failed auctions before time t , two-year average stock price or accounting performance during the CEO's tenure, CEO age or tenure with the firm, an indicator variable equal to one if the CEO is the founder of the firm, and the fraction of independent directors on the board. Given its flexibility, the Cox proportional hazard model has been used by a number of researchers to identify the probability of corporate events while allowing for initial conditions to change over time.⁶

We estimate the hazard rate for CEO turnover using the entire panel of CEOs covered by BoardEx between 2001 and 2009. We relay marginal effects associated with the hazard

⁶ For example, Shumway (2001) utilizes a hazard model to predict bankruptcy and Bharath and Dittmar (2010) model the probability that a firm goes private.

ratio in parentheses as the change in the probability of CEO turnover for a one standard deviation change in a continuous variable, or a shift from zero to one in an indicator variable, holding all other variables constant at their means. The results of these models are summarized in Table 8. We examine the impact of a withdrawn auction on the career of a target CEO by incorporating an indicator variable equal to one for CEO-year observations following failed auctions (Withdraw). Controlling for stock price and accounting performance, this identifies whether the bid, and/or the failure of a takeover bid, provides target boards with incremental information about the quality of the CEO.

Each of the four models presented in Table 8 utilizes alternative measures of pre-bid performance, while controlling for CEO age or CEO tenure. The coefficient on the withdrawn auction indicator variable is consistently positive and significant indicating that takeover activity, even when the bid does not ultimately culminate in a completed transaction, has a profound effect on the professional careers of target CEOs. For example, the standardized coefficient in Model 1 indicates that a failed auction increases the hazard rate of target CEO turnover by 3.1%. This result may explain why we see so little bid resistance and such high completion rate in the data. While employment outcomes for displaced target CEOs can be quite bleak, CEOs that successfully ward off takeover attempts face an equivalently dismal employment future.

As might be expected, firm performance, CEO age, and board structure also play a role in determining the probability of CEO turnover. We find that the probability of CEO turnover is inversely correlated with a firm's stock price and operating performance over the two preceding years, a result consistent with Denis, Denis, and Sarin (1997).

Given that older CEOs are closer to retirement, we incorporate the CEO's age and find that older CEOs are more likely to turnover. We also incorporate CEO tenure, as a substitute for CEO age but do not find that the likelihood of turnover is increasing in CEO tenure. Allgood and Farrell (2003) find that the hazard rate of CEO turnover does not change monotonically with tenure. Rather, it first increases until the fifth year and decreases from that point, a pattern predicted by match theory (Jovanovic, 1979). Another factor that adds to the non-linearity is that as a CEO's tenure grows she is getting closer to retirement age thus is subject to higher likelihood of turnover.

Finally, we consider whether the structure of board governance matters for CEO turnover and find that founding CEOs have a lower incidence of turnover, while CEOs that report to boards with relatively more outside directors have a higher incidence of turnover. This result is consistent with the observation that relatively independent boards are more effective at settling up with CEOs subject to failed takeover bids.

6. Conclusion

This paper investigates the determinants of post-takeover employment opportunities for top managers displaced by takeover bids. In the two years after a completed takeover, 30.4% of all target CEOs are identified in either executive or independent director positions with other public firms. We find that the target's pre-bid operating and stock price performance has a significantly positive impact on the post-takeover employment opportunities, a result consistent with previous literature. This effect is apparent in a subsample of young CEOs, defined as 61 years old or younger, suggesting that both performance and horizon effects are important.

We then turn our attention to the differential impact of these factors on the target CEO's subsequent employment with acquirers and non-acquirers. Pre-bid performance is positively correlated with the likelihood that a target CEO obtains an executive position with the acquiring firm after the takeover, which suggests that target CEOs possess valuable firm-specific human capital. The abnormal premium and stock return to target shareholders, however, are lower when a target CEO obtains a seat on the board of directors in the acquiring firm, which coheres with prior findings that some target CEOs trade acquisition premium for side benefits. Pre-bid performance is also significantly correlated with the likelihood that a target CEO obtains a position with a firm other than the acquirer, thus we conclude that the post-takeover employment market can provide strong incentives for pre-bid performance.

Consistent with our placement results, we find that relatively young CEOs are more likely to resist initial takeover bids when their pre-bid performance is poor relative to their industry, and when the pool of prospective employment opportunities is relatively shallow. Failed auctions increase the hazard rate of target CEO turnover by 12.9%, suggesting that takeover activity, even when the bid does not ultimately culminate in a completed transaction, has a profound effect on the professional careers of target CEOs. Overall the results of this paper provide strong evidence that pre-bid performance and career horizon are significant determinants of a target CEO's post-takeover employment opportunities, and are also reliably linked to the executive's response to a takeover bid.

Appendix A: Variable Definitions

Variable	Definition
<u>CEO Characteristics</u>	
Age	CEO age in years
Age squared	CEO age, squared term
AGE50	Indicator variable equal to one if the CEO is 50 or younger (50 is the median age of the young CEO subsample)
AGE6369	Indicator variable equal to one if the CEO is between 63 and 69 (69 is the median age of the old CEO subsample)
Founder	Indicator variable equal to one if the CEO is also the founder of the firm
PreBidDirectorship	Indicator variable equal to one if the CEO holds one or more outside board seats prior to announcement
logWealthRatio	Calculated as the log ratio of final offer price times the number of target shares owned by CEO over the sum of annual salary and bonus prior to the auction
Tenure	Number of years that the CEO serves as CEO in the target firm
Withdraw	Indicator variable equal to one if a takeover bid on the firm has been withdrawn previously during the CEO's tenure
Young CEO	Indicator variable equal to one if the CEO is 61 or younger
<u>Firm Characteristics</u>	
1-Herfindhal	One minus Herfindhal index based on segment sales
Board Independence	Proportion of outside directors in the board
Leverage	Calculated as short-term debt plus long-term debt, scaled by asset
Homogeneous	Indicator variable equal to one if the target industry is above the median of industry homogeneity, defined in Parrino (1997) as the average of partial correlation between individual stock return and industry index
Industry Size	Indicator variable equal to one if the target industry is in the top quintile of the sample by number of public firms in the industry
JobPool	Calculated as the product of Industry Size and Homogeneous
Size	Book value of asset of target or acquirer
M/B	Calculated as total assets minus book equity plus market equity divided by total assets
R&D	Average R&D, scaled by total asset, of the two years prior to the auction

Appendix A (continued)

Variable	Definition
<u>Bid Characteristics</u>	
Acquirer Public	Indicator variable equal to one if the acquirer is publicly traded
All-Stock bid	Indicator variable equal to one if target shareholders are paid 100% by bidder's equity
With-stock bids	Indicator variable equal to one if the payment to target shareholders includes bidder's equity
Completion	Indicator variable equal to one if the auction is completed
Hostility	Indicator variable equal to one if the initial bid is classified as "hostile" or "unsolicited" by SDC
Multiple Bid	Indicator variable equal to one if the auction consists of more than one bid
Relative deal value	Transaction value divided by the acquirer market value of asset
Poison Pill	Indicator variable equal to one if the target adopts the poison pill clause
Same industry	Indicator variable equal to one if the target and bidder are in the same two-digit SIC code
Tender Offer	Indicator variable equal to one if the initial bid is a tender offer
Toehold	Indicator variable equal to one if the acquirer's ownership in the target is non-zero prior to the announcement
<u>Merger performance and firm performance</u>	
Abnormal Premium	Calculated as the difference between final premium and expected premium, which is the predicted value from a multivariate regression of final premium in Appendix B
Annual RET	Average compound annual return of a target firm, net of the CRSP market index, over two years prior to the announcement of the initial bid in an auction, or over the target CEO's tenure, whichever is less.
CAR (-1,+1)	Cumulative abnormal return over the announcement window [-1, +1]
BHAR	The 3-year buy-and-hold abnormal stock return of the acquirer after the takeover is completed, benchmark being control firms matched on firm size and M/B
Final Premium	Calculated as the final bid price per share divided by the target's stock price 42 trading days prior to the announcement, less one
ROA	Average annual return on assets of a target firm, net of the industry median, over two fiscal years prior to the announcement of the initial bid in an auction, or over the target CEO's tenure, whichever is less.
Runup	Change in target price from day (-42) to day (-1) before the bid announcement date

Appendix B: Model used in calculation of abnormal premium

Abnormal premium of an auction is calculated as the difference between the final premium and the expected premium. Expected premium is the out-of-sample prediction from a multivariate regression of final premium based on 3,934 single-bid, completed auctions. The OLS estimates are indicated in the following equation:

$$\text{Expected premium} = 0.804 - 0.042 \cdot \log\text{ME42} + 0.138 \cdot \text{B/M} + 1.048 \cdot \text{Runup} + 0.119 \cdot \text{PoisonPill} - 0.006 \cdot \text{Toehold} + 0.039 \cdot \text{AcquirerPublic} + 0.058 \cdot \text{TenderOffer} - 0.034 \cdot \text{AllCash} + 0.264 \cdot \text{Hostility} + \text{Coefficient} \cdot \text{Year Dummies}$$

$\log\text{ME42}$ is the natural log of target market capitalization on day -42. B/M is the book-to-market ratio of the target firm asset, net of the industry median. Runup is the change in target price from day -42 to day -1 before the bid announcement date. PoisonPill is an indicator variable equal to one if the target adopts the poison pill clause. Toehold is an indicator variable equal to one if the acquirer's ownership in the target is non-zero prior to the announcement. AcquirerPublic is an indicator variable equal to one if the acquirer is publicly traded. TenderOffer is an indicator variable equal to one if the bid is a tender offer. AllCash is an indicator variable equal to one if transaction is paid 100% in cash. Hostility is an indicator variable equal to one if the initial bid is classified as "hostile" or "unsolicited" by SDC. Coefficients of year dummies are not reported. t-statistics are reported in parentheses. ***, **, * Denote statistical significance at the 1%, 5% and 10% level, respectively.

Parameter	Coefficient	t-stat	
Intercept	0.804	(15.052)	***
$\log\text{ME42}$	-0.042	(-10.984)	***
B/M	0.138	(7.045)	***
Runup	1.048	(41.355)	***
PoisonPill	0.119	(1.136)	
Toehold	-0.006	(-0.253)	
AcquirerPublic	0.039	(2.666)	***
TenderOffer	0.058	(3.713)	***
AllCash	-0.034	(-2.294)	**
Hostility	0.264	(4.308)	***
Year Dummies		Yes	
Adjusted R-square		0.422	

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Figure 1: Target attitude and CEO post-takeover employment by age groups

The figure summarizes the proportion of target CEOs who show hostility towards takeover attempts and who obtain new jobs within two years of the auction completion. The observations are compiled from takeover bids reported in Securities Data Corporation, announced and either completed or withdrawn between 2000 and 2008. Targets are US public firms covered by CRSP, COMPUSTAT and Compact Disclosure. An auction is composed of all bids for a target beginning with the first observed bid and including any successive bids made within 365 calendar days of a prior announcement. Hostile auctions are those with initial bids classified as either hostile or unsolicited in SDC. The proportion of target CEOs showing hostility is calculated from 1,416 auctions announced and either completed or withdrawn between 2000 and 2008. The proportions of target CEOs obtaining any job, any officer job or any director job are calculated from 1,240 completed auctions.

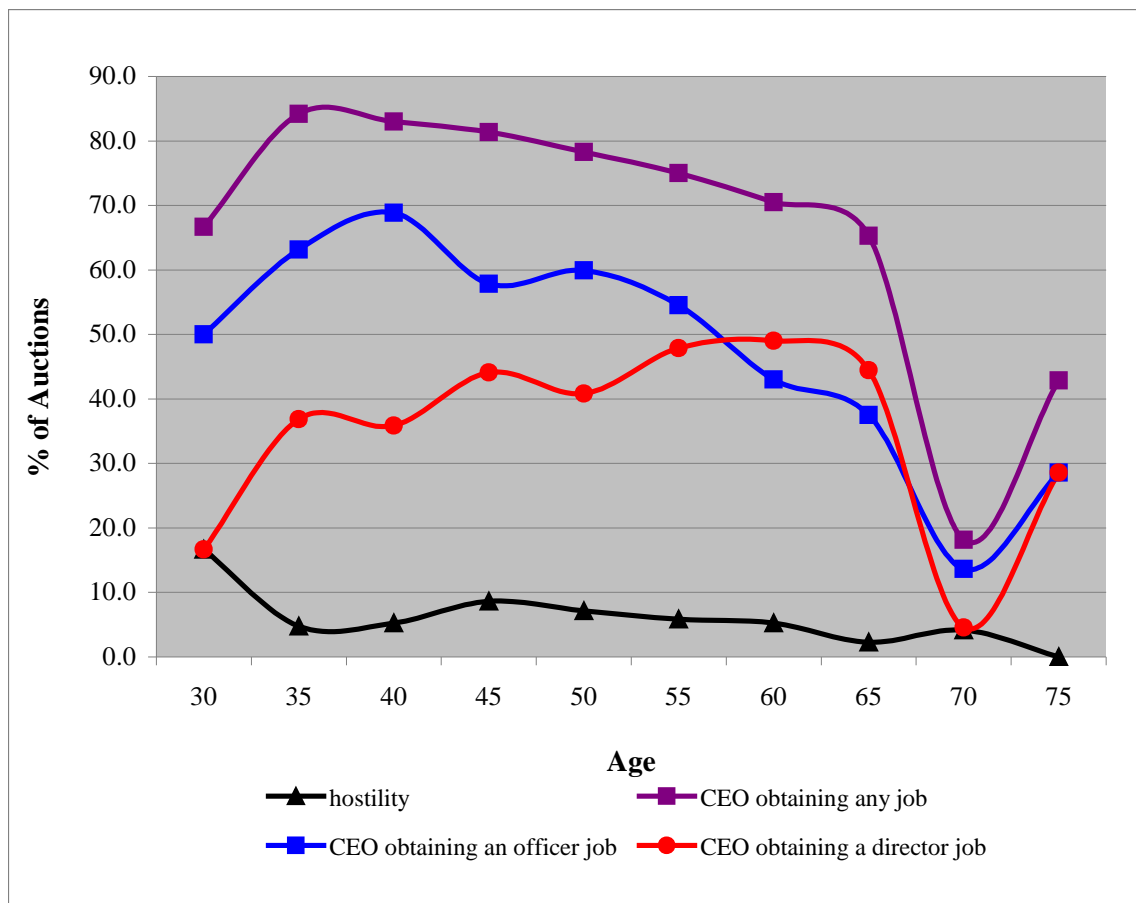


Figure 2: Target attitude and CEO age

This figure depicts the quadratic relationship between target CEO age and the attitude of target management towards takeover attempts. The fitted probability of bid hostility is generated using estimated coefficients from a logistic model presented in Column (5), Table 7. The sample consists of 220 CEOs with age of 62 or older. The dependent variable is Hostility, an indicator variable equal to one if an auction has the initial bid classified as either “Hostile” or “Unsolicited” in SDC, zero otherwise. Independent variables include target CEO age and other control variables. Control variables take value at the sample average. The minimum of 1.09% is achieved at age 69.

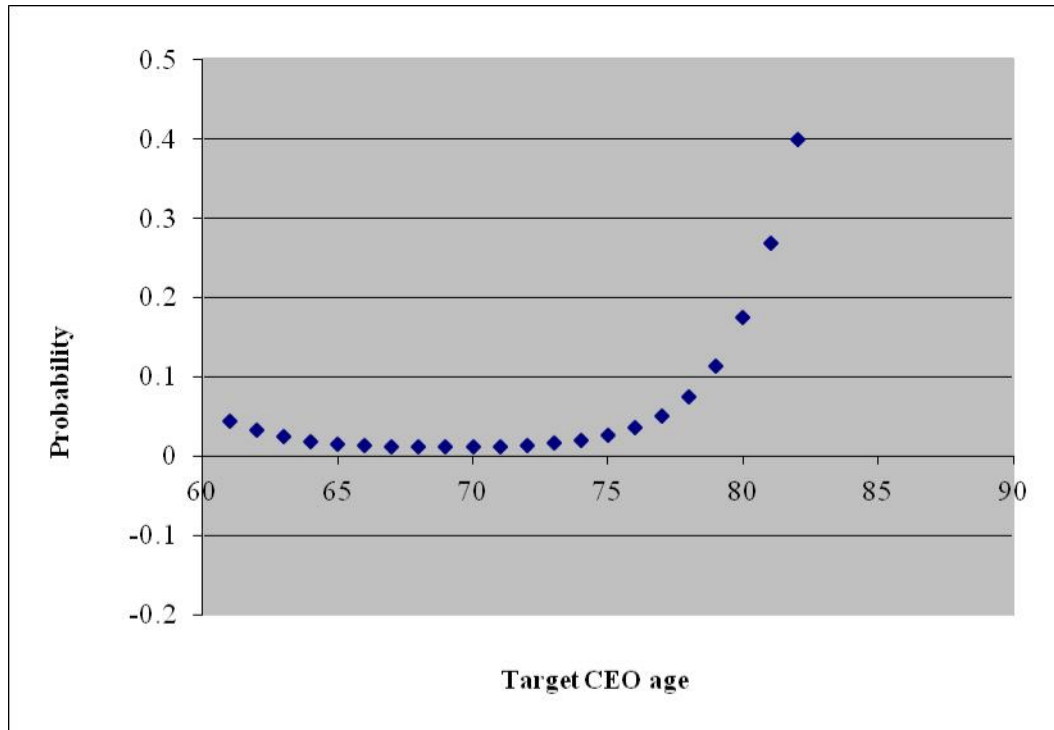


Table 1: Merger and Acquisition Auctions: 2000 to 2008

The table presents the distribution, outcome, and form of sample auctions by announcement year, by target's industry, and by target CEO's age. All 1,416 auctions are announced and either completed or withdrawn between 2000 and 2008, reported in the Mergers and Acquisitions database maintained by Securities Data Corporation. An auction is composed of all bids for a target beginning with the first observed bid and including any successive bids made within 365 calendar days of a prior announcement. Targets are US public firms covered by CRSP, COMPUSTAT and BoardEx. Target's industry is defined by the Fama-French 12-industry classifications. Panel A, Panel B and Column (2) - (5) in Panel C are based on the full sample of 1,416 auctions. Column (6) - (8) in Panel C summarize the proportion of target CEOs obtaining any job, any officer job or any director job, and are calculated based on the subsample of 1,240 completed auctions. A job is counted if held within two years before the announcement or obtained within two years after the auction completion, except for Column (6) where any job obtained after the takeover is counted. Column (9) and (10) summarize the proportion of target CEOs obtaining a job with a non-acquiring firm or the acquirer, calculated based on the 904 completed auctions with acquirer also covered by BoardEx.

Panel A: The distribution of merger activity by year

Year	# of Auctions	% Completed	% as Tender Offers
2000	135	85.2	23.0
2001	106	86.8	20.8
2002	73	87.7	16.4
2003	107	85.0	11.2
2004	118	88.1	6.8
2005	170	90.6	6.5
2006	239	93.3	8.4
2007	286	89.2	16.8
2008	182	78.0	21.4
Sum	1416	87.6%	14.3%

Panel B: The distribution of merger activity by industry

Industry	# of Auctions	% Completed	% as Tender Offers
1. NonDurables	60	86.7	18.3
2. Durables	19	78.9	26.3
3. Manufacturing	98	87.8	9.2
4. Energy	59	84.7	13.6
5. Chemicals and Allied	22	68.2	13.6
6. Business Equipment	329	89.1	17.0
7. Telecommunication	45	82.2	8.9
8. Utilities	26	73.1	3.8
9. Wholesale, Retail	125	85.6	14.4
10. Health	187	92.0	31.6
11. Finance	280	91.1	3.2
12. Other	166	83.7	12.0
Sum	1416	87.6%	14.3%

Table 1 (continued)

Panel C: The distribution of merger activity by CEO age

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
CEO age	# of Auctions	# Completed	% Completed	% As Hostile	% Any job	% Officer job	% Director job	% Acquirer job	% Non-Acquirer job
30-34	6	6	100.0	16.7	66.7	50.0	16.7	33.3	0.0
35-39	21	19	90.5	4.8	84.2	63.2	36.8	37.5	56.3
40-44	114	106	93.0	5.3	83.0	68.9	35.8	27.8	69.6
45-49	243	204	84.0	8.6	81.4	57.8	44.1	25.9	68.7
50-54	307	272	88.6	7.2	78.3	59.9	40.8	26.0	69.3
55-59	376	332	88.3	5.9	75.0	54.5	47.9	28.4	67.6
60-64	229	200	87.3	5.2	70.5	43.0	49.0	28.1	54.2
65-69	87	72	82.8	2.3	65.3	37.5	44.4	14.6	45.8
70-74	24	22	91.7	4.2	18.2	13.6	4.5	8.3	8.3
75-87	9	7	77.8	0.0	42.9	28.6	28.6	0.0	25.0
Sum	1416	1240	87.6%	6.2%	75.1%	53.9%	43.5%	26.4%	63.5%

Table 2: Summary of bid, target firm, and CEO characteristics

The table summarizes transaction characteristics of 1,416 auctions announced and either completed or withdrawn between 2000 and 2008. Panel A summarizes general bid characteristics from Securities Data Corporation (SDC). Bid characteristics are reported for first bids in auction sequences unless otherwise indicated. Toehold (%) is the bidding firm's ownership in the target prior to the announcement date. Hostile auctions are those with initial bids classified as either hostile or unsolicited in SDC. Stock bid is an indicator variable equal to one if target shareholders are paid 100% by bidder's equity. Tender offer is an indicator variable equal to one if the initial bid is a tender offer. Same industry is an indicator variable equal to one if the target and the bidder are in the same industry, defined by the two-digit SIC code. Completion is an indicator variable equal to one for completed auctions and zero if all bids are withdrawn. MultipleBid is an indicator variable equal to one if the auction has multiple bids. The initial (final) bid premium is computed as the initial (final) bid price per share divided by the target's share price 42 or 5 trading days prior to the announcement date, less one. Abnormal premium is calculated by model introduced in Appendix B. Target and acquirer cumulative abnormal returns (CAR) are measured as the firms' stock return less the return on the Center for Research in Security Prices (CRSP) value-weighted index over the window of [-1, +1] around the initial bid announcement. Target runup is the change in target price from day (-42) to day (-1) before the announcement date. Target firm characteristics are reported in Panel B and are computed using COMPUSTAT data from the fiscal year immediately preceding an initial bid in an auction. Debt includes short- and long-term debt. M/B is measured as total assets minus book equity plus market equity divided by total assets. Free cash flow is calculated as operating income before depreciation minus total taxes, change in deferred taxes, gross interest expense, any preferred and common dividends paid, scaled by asset. ROA is the pre-takeover annual average of return on assets net of the industry median. Annual RET is the average compound annual returns over the pre-takeover window, net of the value-weighted CRSP market index. Pre-takeover window is defined as the last two years before the announcement of the initial bid in an auction or CEO's tenure, whichever is less. Panel C reports characteristics of target CEOs and statistics of their employment outcome within two years after the auction completion. Ownership is the proportional holding of equity by a target CEO in the fiscal year prior to the initial bid. CEO Duality is an indicator variable equal to one if the CEO also serves as Chair of the Board. Numbers of jobs held before and obtained after auction, and the percentage of target CEOs obtaining any job, any officer job or any director job are calculated based on the subsample of 1,240 completed auctions. If a CEO serves as both officer and director at a new firm, she is counted as obtaining an officer job, but not obtaining a director job, to avoid double counting. The percentage of target CEOs obtaining any non-acquirer job or any acquirer job are calculated based on the subsample of 904 completed auctions with the acquirer also covered by BoardEx.

Panel A: Bid Characteristics

	N	Mean	Median		N	Mean	Median
# days in auction	1416	141	116	Multiple-bid auction	1416	7.2%	0
Deal value (\$m)	1416	2,080	436	Public acquirer	1416	61.2%	1
Relative deal value	866	28.1%	11.2%	Initial premium (-42 day)	1316	40.2%	31.6%
Toehold (Dummy)	1416	5.8%	0	Initial premium (-5 day)	1337	35.0%	27.7%
Bid hostility	1416	6.2%	0	Final premium (-42 day)	1311	42.0%	32.7%
All-Stock bids	1416	17.3%	0	Final premium (-5 day)	1339	36.4%	28.8%
With-stock bids	1416	36.9%	0	Abnormal premium	1305	2.1%	-1.8%
Tender offer	1416	14.3%	0	CAR target (-1, +1)	1397	23.1%	18.8%
Same industry	1416	43.1%	0	CAR acquirer (-1, +1)	866	-2.5%	-1.4%
Bid completion	1416	87.6%	1	Target run-up	1403	2.5%	3.8%

Table 2 (continued)

Panel B: Target Characteristics

	N	Mean	Median
Total assets (\$m)	1416	2,992	443
Leverage	1410	21.5%	16.8%
M/B	1411	1.79	1.36
ROA (Ind. Adj.)	1416	0.01	0.01
Annual RET	1416	3.5%	0.4%

Panel C: Target CEO Characteristics

	N	Mean	Median
CEO age	1416	54	55
CEO-chairman duality	1416	53.7%	1
Tenure	1410	6.22	4.5
CashPay	1416	884	571
CEO ownership (%)	1409	5.3%	2.1%
Equity Value	1358	45,328	10,720
CEO Wealth Ratio	1358	49.94	17.08
Outside directorship	1416	46.0%	0
Multiple-outside directorship	1416	17.7%	0
Number of outside directorship	1416	0.80	0
Job Pool	1404	34.8%	0
Obtaining any job (%)	1240	75.1%	1
Obtaining an officer job (%)	1240	53.9%	1
Obtaining a director job (%)	1240	43.5%	0
Obtaining an acquirer job (%)	904	26.4%	0
Obtaining a non-acquirer job (%)	904	63.5%	1
Officer job in the acquirer	904	14.0%	0
Officer job in an acquirer sub	904	4.2%	0
Director job in the acquirer	904	12.4%	0
Officer job in non-acquiring firms	904	44.1%	0
Director job in non-acquiring firms	904	38.7%	0

Table 3: The distribution of auctions by number of post-takeover jobs

The table presents the distribution of 1,240 completed sample auctions by the number of jobs a target CEO obtains within two years after the auction completion. Panel A shows that 53.9% of the target CEOs obtain at least one officer job, whereas 43.5% obtain at least one director job in Panel B. If a CEO serves as both officer and director at a new firm, she is counted as obtaining an officer job therefore included in Panel A, but not obtaining a director job in Panel B, to avoid double counting.

Panel A: Officer Jobs

# of Officer Jobs	# of Auctions	% of Auctions
0	572	46.1
1	470	37.9
2	153	12.3
3	45	3.6
Sum	1240	100

Panel B: Director Jobs

# of Director jobs	# of Auctions	% of Auctions
0	701	56.5
1	277	22.3
2	151	12.2
3 or more	111	9.0
Sum	1240	100

Table 4: Logistic regressions modeling post-takeover employment of Young CEOs vs. Old CEOs

Models 1-4 estimate the probability that a young CEO, defined as 61 years old or younger, obtains any job within two years of the auction completion. Models 5-8 estimate the probability that an old CEO, defined as 62 years old or older, obtains any job. The dependent variable equals one if the CEO gets at least one officer or director job and zero otherwise. The sample consists of 1,039 completed auctions with young CEOs, and 201 with old CEOs. PreBidDirectorship is an indicator variable equal to one if the CEO holds one or more outside board seats. JobPool is the product of Homogenous and Industry Size. Homogenous is an indicator variable equal to one if the target industry is above the median of industry homogeneity, defined in Parrino (1997) as the average of partial correlation between individual stock return and industry index. Industry Size is an indicator variable equal to one if the target industry is in the top quintile of the sample by the number of public firms in the industry. MultipleBid is an indicator variable equal to one if the auction has multiple bids. Other independent variables are defined in Appendix A. Marginal effects are provided in parentheses, as the change in the probability given a one standard deviation increase in a continuous variable, or a shift from zero to one in an indicator variable, holding all other variables constant at their means. ***, **, * Denote statistical significance at the 1%, 5% and 10% level, respectively.

Table 4 (continued)

Model	Young CEOs (0<age 62)				Old CEOs (age>62)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	1.060 ***	0.954 ***	0.882 **	0.806 **	-0.061	-0.255	-0.282	-0.041
Annual RET	0.682 ** (0.042)				0.665 (0.050)			
ROA		0.756 ** (0.031)				-2.729 (-0.099)		
Abnormal Premium			0.459 * (0.028)				1.418 * (0.087)	
Target CAR [-1, +1]				0.207 (0.008)				-0.406 (-0.021)
logWealthRatio	-0.011 (-0.003)	0.011 (0.003)	0.018 (0.005)	0.019 (0.005)	-0.086 (-0.029)	-0.027 (-0.009)	-0.087 (-0.029)	-0.072 (-0.024)
Target Size	0.038 ** (0.062)	0.037 ** (0.059)	0.036 ** (0.057)	0.037 ** (0.060)	0.034 ** (0.090)	0.031 * (0.082)	0.038 ** (0.099)	0.033 ** (0.087)
PreBidDirectorship	0.358 ** (0.060)	0.344 ** (0.057)	0.310 * (0.052)	0.326 * (0.054)	0.753 ** (0.183)	0.702 * (0.170)	0.656 * (0.160)	0.722 * (0.176)
JobPool	-0.368 * (-0.029)	-0.378 * (-0.030)	-0.312 (-0.024)	-0.319 (-0.025)	0.610 (0.073)	0.642 (0.077)	0.533 (0.064)	0.638 (0.076)
MultipleBid	0.217 (0.036)	0.276 (0.046)	0.262 (0.044)	0.293 (0.049)	-1.281 (-0.312)	-1.242 (-0.301)	-1.353 (-0.330)	-1.269 (-0.309)
Hostility	-0.262 (-0.006)	-0.344 (-0.008)	-0.283 (-0.007)	-0.304 (-0.007)	-22.543 (-0.387)	-22.974 (-0.393)	-23.776 (-0.409)	-22.508 (-0.386)
R&D	-0.128 (-0.002)	0.503 (0.009)	-0.594 (-0.010)	-0.458 (-0.008)	-4.443 (-0.067)	-8.509 * (-0.127)	-4.697 (-0.071)	-2.296 (-0.034)
Year and Ind. FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-square	0.062	0.058	0.056	0.054	0.149	0.156	0.154	0.138
Num of obs.	994	987	987	991	189	187	188	187

Table 5: Logistic regressions modeling post-takeover employment of Young CEOs in the acquiring firms

This table presents the logistic models of the probability that a young CEO, defined as 61 years old or younger, obtains a job in the acquirer within two years of the auction completion. Panel A estimates the probability of obtaining any job. Panel B tests whether the type of jobs obtained, i.e. as an officer or a director, is associated with different measure of CEO performance. The sample consists of 737 completed auctions with a young CEO and an acquirer also covered by BoardEx. We require the coverage of acquirer in order to identify whether a job is with the acquirer or not. Independent variables are defined in Appendix A. Marginal effects are provided in parentheses, as the change in the probability given a one standard deviation increase in a continuous variable, or a shift from zero to one in an indicator variable, holding all other variables constant at their means. ***, **, * Denote statistical significance at the 1%, 5% and 10% level, respectively.

Panel A: CEO performance and the probability of obtaining any job in the acquiring firms

Model	(1)	(2)	(3)	(4)
Intercept	-1.178 ***	-1.309 ***	-1.321 ***	-1.043 **
Annual RET	0.525 ** (0.039)			
ROA		0.146 (0.006)		
Abnormal Premium			0.045 (0.004)	
Target CAR [-1, +1]				-1.192 *** (-0.058)
logWealthRatio	0.129 ** (0.044)	0.152 *** (0.052)	0.154 *** (0.052)	0.156 *** (0.053)
Target Size	0.000 (0.001)	-0.001 (-0.002)	-0.001 (-0.002)	-0.002 (-0.005)
PreBidDirectorship	0.414 ** (0.083)	0.396 ** (0.080)	0.393 ** (0.079)	0.410 ** (0.082)
JobPool	0.559 ** (0.053)	0.603 *** (0.057)	0.613 *** (0.058)	0.585 *** (0.056)
MultipleBid	-0.345 (-0.069)	-0.358 (-0.072)	-0.350 (-0.070)	-0.422 (-0.085)
Hostility	-1.672 (-0.047)	-1.774 (-0.050)	-1.745 (-0.049)	-1.721 (-0.048)
R&D	1.664 (0.035)	1.532 (0.032)	1.206 (0.025)	1.644 (0.035)
Year and Ind. FE	Yes	Yes	Yes	Yes
Pseudo R-square	0.100	0.097	0.095	0.105
Num of obs.	737	732	733	736

Table 5 (continued)

Panel B: CEO performance and the type of jobs obtained in the acquiring firms

Model	Pre-bid performance				Bid performance			
	(1) Officer	(2) Director	(3) Officer	(4) Director	(5) Officer	(6) Director	(7) Officer	(8) Director
Intercept	-1.009 **	-3.947 ***	-1.183 ***	-3.997 ***	-1.181 ***	-4.060 ***	-0.934 **	-3.618 ***
Annual RET	0.612 ** (0.036)	0.254 (0.010)						
ROA			0.995 * (0.034)	-0.424 (-0.010)				
Abnormal Premium					-0.025 (-0.002)	-0.737 (-0.030)		
Target CAR [-1, +1]							-1.093 ** (-0.042)	-2.620 *** (-0.066)
logWealthRatio	0.072 (0.020)	0.242 *** (0.044)	0.083 (0.023)	0.266 *** (0.048)	0.103 * (0.028)	0.270 *** (0.048)	0.105 * (0.029)	0.295 *** (0.052)
Target Size	0.016 * (0.024)	-0.007 (-0.007)	0.014 * (0.022)	-0.008 (-0.008)	0.014 * (0.022)	-0.006 (-0.006)	0.013 (0.020)	-0.008 (-0.008)
PreBidDirectorship	0.052 (0.008)	0.724 *** (0.077)	0.039 (0.006)	0.697 *** (0.074)	0.029 (0.005)	0.723 *** (0.076)	0.035 (0.006)	0.718 *** (0.074)
JobPool	0.596 ** (0.045)	0.164 (0.008)	0.643 *** (0.049)	0.203 (0.010)	0.655 *** (0.050)	0.199 (0.010)	0.630 *** (0.048)	0.107 (0.005)
MultipleBid	-0.371 (-0.059)	-0.322 (-0.034)	-0.413 (-0.066)	-0.303 (-0.032)	-0.371 (-0.059)	-0.361 (-0.038)	-0.433 (-0.069)	-0.523 (-0.054)
Hostility	-1.294 (-0.029)	-22.717 (-0.335)	-1.422 (-0.032)	-22.761 (-0.338)	-1.375 (-0.030)	-22.684 (-0.333)	-1.352 (-0.030)	-22.401 (-0.321)
R&D	-0.312 (-0.005)	3.853 ** (0.043)	0.289 (0.005)	3.310 ** (0.037)	-0.859 (-0.014)	3.260 ** (0.036)	-0.406 (-0.007)	4.351 *** (0.047)
Year and Ind. FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-square	0.072	0.142	0.071	0.142	0.067	0.148	0.074	0.167
Num of obs.	737	737	732	732	733	733	736	736

Table 6: Logistic regressions modeling post-takeover employment of Young CEOs in non-acquiring firms

This table presents the logistic models of the probability that a young CEO, defined as 61 years old or younger, obtains a job in non-acquiring firms within two years of the auction completion. Panel A estimates the probability of obtaining any job. Panel B tests whether the type of jobs obtained, i.e. as an officer or a director, is associated with different measure of CEO performance. The sample consists of 737 completed auctions with the acquirer also covered by BoardEx. We require the coverage of acquirer in order to identify whether a job is with the acquirer or not. Independent variables are defined in Appendix A. Marginal effects are provided in parentheses, as the change in the probability given a one standard deviation increase in a continuous variable, or a shift from zero to one in an indicator variable, holding all other variables constant at their means. ***, **, * Denote statistical significance at the 1%, 5% and 10% level, respectively.

Panel A: CEO performance and the probability of obtaining any job in non-acquiring firms

Model	(1)	(2)	(3)	(4)
Intercept	0.790 *	0.630	0.644	0.591
Annual RET	0.632 ** (0.051)			
ROA		1.008 ** (0.047)		
Abnormal Premium			0.486 * (0.041)	
Target CAR [-1, +1]				0.088 (0.005)
logWealthRatio	-0.093 * (-0.034)	-0.078 (-0.029)	-0.069 (-0.026)	-0.068 (-0.025)
Target Size	0.016 * (0.033)	0.014 (0.031)	0.013 (0.028)	0.015 (0.031)
PreBidDirectorship	0.585 *** (0.128)	0.603 *** (0.132)	0.577 *** (0.126)	0.581 *** (0.127)
JobPool	-0.216 (-0.022)	-0.192 (-0.020)	-0.112 (-0.012)	-0.133 (-0.014)
MultipleBid	-0.012 (-0.003)	-0.054 (-0.012)	-0.038 (-0.008)	-0.024 (-0.005)
Hostility	0.554 (0.017)	0.505 (0.015)	0.534 (0.016)	0.518 (0.016)
R&D	0.737 (0.017)	1.470 (0.034)	0.108 (0.002)	0.309 (0.007)
Year and Ind. FE	Yes	Yes	Yes	Yes
Pseudo R-square	0.062	0.061	0.062	0.057
Num of obs.	737	732	733	736

Table 6 (continued)

Panel B: CEO performance and the type of jobs obtained in non-acquiring firms

Model	Pre-bid performance				Bid performance			
	(1) Officer	(2) Director	(3) Officer	(4) Director	(5) Officer	(6) Director	(7) Officer	(8) Director
Intercept	0.497	-1.666 ***	0.375	-1.752 ***	0.376	-1.824 ***	0.378	-1.824 ***
Annual RET	0.469 ** (0.043)	0.363 (0.032)						
ROA			0.267 (0.014)	0.830 * (0.043)				
Abnormal Premium					0.134 (0.013)	0.787 *** (0.074)		
Target CAR [-1, +1]							-0.044 (-0.003)	0.213 (0.012)
logWealthRatio	-0.165 *** (-0.070)	0.056 (0.023)	-0.142 *** (-0.060)	0.058 (0.024)	-0.142 *** (-0.060)	0.076 (0.031)	-0.143 *** (-0.061)	0.071 (0.029)
Target Size	-0.001 (-0.001)	0.024 *** (0.057)	-0.001 (-0.003)	0.023 *** (0.055)	-0.002 (-0.005)	0.022 ** (0.052)	-0.001 (-0.004)	0.024 *** (0.056)
PreBidDirectorship	0.203 (0.051)	0.836 *** (0.202)	0.200 (0.050)	0.833 *** (0.201)	0.201 (0.050)	0.807 *** (0.195)	0.195 (0.049)	0.826 *** (0.200)
JobPool	-0.295 (-0.035)	0.169 (0.019)	-0.279 (-0.033)	0.142 (0.016)	-0.220 (-0.026)	0.238 (0.027)	-0.236 (-0.028)	0.226 (0.026)
MultipleBid	0.436 (0.109)	-0.118 (-0.029)	0.418 (0.104)	-0.149 (-0.036)	0.420 (0.105)	-0.145 (-0.035)	0.417 (0.104)	-0.121 (-0.029)
Hostility	0.189 (0.007)	0.583 (0.020)	0.173 (0.006)	0.553 (0.019)	0.166 (0.006)	0.607 (0.020)	0.166 (0.006)	0.566 (0.019)
R&D	0.472 (0.012)	0.315 (0.008)	0.582 (0.015)	1.041 (0.026)	0.010 (0.000)	-0.135 (-0.003)	0.193 (0.005)	-0.030 (-0.001)
Year and Ind. FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-square	0.057	0.083	0.053	0.082	0.055	0.094	0.054	0.082
Num of obs.	737	737	732	732	733	733	736	736

Table 7: Target attitude toward the auction, CEO age, and pre-auction performance

This table presents coefficient estimates from a logistic model of the likelihood of target hostility toward the auction. The dependent variable equals one if the initial bids are classified as either hostile or unsolicited in SDC. Out of 1425 auctions, 88 are classified as hostile. AGE5361, AGE6266 and AGE67plus are indicator variables equal to one if the target CEO age is between 53 and 61, between 62 and 66, or above 67 respectively. Other independent variables are defined in Appendix A. Marginal effects are provided in parentheses, as the change in the probability given a one standard deviation increase in a continuous variable, or a shift from zero to one in an indicator variable, holding all other variables constant at their means. ***, **, * Denote statistical significance at the 1%, 5% and 10% level, respectively.

	Full sample			Young CEOs (0<age≤61)			Old CEOs (age>61)		
	(1)	(2)	(new)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	-7.812	-0.590	-1.722***	-0.824	-1.625***	-1.679***	109.809*	-1.108	-0.832
Age (year)	0.260 (0.107)	-0.018 (-0.007)		-0.040 (-0.014)			-3.247* (-0.466)		
Age*Annual RET		0.012 (0.001)							
Age squared	-0.003 (0.000)			0.001 (0.000)			0.024* (0.001)		
Age5361			0.342 (0.018)		0.160 (0.009)	0.200 (0.012)			
Age5361*Annual RET			1.443* (0.078)		1.348* (0.078)	1.418* (0.082)			
AGE6266								-1.350 (-0.047)	-1.608 (-0.056)
AGE6266*Annual RET			-0.039 (-0.002)					-6.814* (-0.239)	-6.731* (-0.236)
Age67plus			-0.605 (-0.033)						
Age67plus*Annual RET			0.819 (0.044)						
JobPool	0.365 (0.020)	0.360 (0.019)	0.302 (0.016)	0.310 (0.018)	0.290 (0.017)	0.051 (0.003)	-0.168 (-0.006)	0.140 (0.005)	-0.694 (-0.024)

Table 7 (continued)

JobPool*Annual RET						-1.822*			-5.567
						(-0.106)			(-0.195)
Annual RET		-1.131	-1.241**	-0.495	-1.132*	-0.793	-1.259	2.998	4.234
		(-0.022)	(-0.024)	(-0.011)	(-0.024)	(-0.017)	(-0.014)	(0.034)	(0.048)
logWealthRatio	0.117	0.124	0.131	0.182**	0.186**	0.182**	-0.414	-0.223	-0.295
	(0.010)	(0.011)	(0.012)	(0.018)	(0.018)	(0.018)	(-0.020)	(-0.011)	(-0.014)
PreBidDirectorship	-0.779***	-0.784***	-0.838***	-0.851***	-0.846***	-0.858***	-0.258	-0.346	-0.461
	(-0.042)	(-0.042)	(-0.045)	(-0.049)	(-0.049)	(-0.050)	(-0.009)	(-0.012)	(-0.016)
Target Size	-0.002	-0.002	-0.003	-0.025	-0.025	-0.024	0.020	0.024	0.031
	(-0.001)	(-0.001)	(-0.002)	(-0.014)	(-0.014)	(-0.014)	(0.007)	(0.009)	(0.011)
Same industry	-0.299	-0.273	-0.272	-0.207	-0.235	-0.208	-1.633	-1.864	-1.503
	(-0.016)	(-0.015)	(-0.015)	(-0.012)	(-0.014)	(-0.012)	(-0.057)	(-0.065)	(-0.053)
Toehold	2.184***	2.182***	2.201***	2.271***	2.272***	2.287***	2.699**	2.970**	3.255**
	(0.117)	(0.117)	(0.118)	(0.132)	(0.132)	(0.133)	(0.095)	(0.104)	(0.114)
TenderOffer	-0.142	-0.183	-0.162	-0.147	-0.148	-0.114	0.485	-0.119	-0.433
	(-0.008)	(-0.010)	(-0.009)	(-0.009)	(-0.009)	(-0.007)	(0.017)	(-0.004)	(-0.015)
R&D	-1.707	-1.949	-1.664	-2.284	-2.087	-1.760	-31.622	-16.212	-17.220
	(-0.009)	(-0.010)	(-0.009)	(-0.013)	(-0.012)	(-0.010)	(-0.065)	(-0.033)	(-0.036)
Pseudo Rsq	0.194	0.193	0.200	0.196	0.202	0.208	0.422	0.382	0.414
num of obs	1351	1351	1351	1131	1131	1131	220	220	220

Table 8: CEO turnover and withdrawn auctions

This table presents coefficient estimates from a hazard model following Shumway (2001). The sample is a panel dataset consisting of all years in office for the withdrawing CEOs. A withdrawing CEO is a CEO whose firm has been the target of a withdrawn auction. The dependent variable equals one in the last year of a CEO's tenure with the firm and zero otherwise. Withdraw is an indicator variable equal to one if the firm becomes the target of a withdrawn auction in any previous year during the CEO's tenure. Tenure is the number of years serving as CEO. Board Independence is the proportion of outside directors in the board. Other independent variables are defined in Appendix A. Marginal effects are provided in parentheses, as the change in the probability given a one standard deviation increase in a continuous variable, or a shift from zero to one in an indicator variable, holding all other variables constant at their means. ***, **, * Denote statistical significance at the 1%, 5% and 10% level, respectively.

	(1)	(2)	(3)	(4)
Intercept	-3.706***	-1.340***	-3.357***	-1.022***
Withdraw	0.258**	0.252**	0.269**	0.264**
	(0.031)	(0.030)	(0.032)	(0.031)
Annual RET	-0.828***	-0.738***		
	(-0.036)	(-0.032)		
ROA			-0.539***	-0.383***
			(-0.015)	(-0.010)
Annual RET*BoardIndependence	-0.327**	-0.351***		
	(-0.039)	(-0.042)		
ROA*BoardIndependence			-0.365**	-0.440***
			(-0.043)	(-0.052)
Board Independence	-0.411***	-0.420***	-0.410***	-0.422***
	(-0.049)	(-0.050)	(-0.049)	(-0.050)
Age	0.039***		0.039***	
	(0.038)		(0.038)	
Tenure		0.003		0.003
		(0.003)		(0.002)
Founder	-0.435***	-0.390***	-0.461***	-0.413***
	(-0.052)	(-0.047)	(-0.055)	(-0.049)
Size	0.001**	0.001***	0.001**	0.001***
	(0.004)	(0.005)	(0.004)	(0.005)
Pseudo R-square	0.048	0.035	0.038	0.024
Num of obs.	28465	28470	28465	28470